OES CALIFORNIA
Governor's Office of Emergency Services

OES FIRE AND RESCUE BRANCH

California Fire Service and Rescue Emergency Mutual Aid System

STRIKE TEAM / TASK FORCE LEADER MANUAL

Arnold Schwarzenegger
Governor

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Rev 06/02

OES MANUAL OF PROCEDURES AND DUTIES STRIKE TEAM / TASK FORCE LEADER (ENGINE)

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STRIKE TEAM/TASK FORCE LEADER MANUAL (ENGINE)

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STRIKE TEAM/TASK FORCE LEADER MANUAL (ENGINE)

A INTRODUCTION

This document is provided for OES and local government Strike Team/Task Force Leaders and Company Officers. It will provide guidance in the preparation and operation of your OES Strike Team at any incident. The information presented is based on past experience, recognized standards, and OES policies and procedures.

The Strike Team/Task Force has become an effective tool in the emergency management of incidents of all types. The use of Strike Teams and/or Task Forces enables the fire agency to make incident assignments on a team basis. Fire apparatus and crews, with a team leader, arrive as a team, work as a team, and are released or reassigned as a team.

ENGINE STRIKE TEAM TYPES AND MINIMUM STANDARDS

Requests for apparatus should always be by ICS Type and Kind:

KIND E N G I N E S	Strike Team Types	Number/ Type	MINIMUM EQUIPMENT STANDARDS							MINIMUM STAFFING		
			Pump Cap.	Water Cap.	2½" Hose	1½" Hose	1" Hose	Ladder	Heavy Stream	S/T Leader	Per Single Res.	Total Pers.
	A	5-Type 1	1000 GPM	400 Gal	1200 Ft	400 Ft	200 Ft	20 Ft Ext.	500 GPM	1	4	21
	B	5-Type 2	500 GPM	400 Gal	1000 Ft	500 Ft	300 Ft	20 Ft Ext.	N/A	1	3	16
	C	5-Type 3	120 GPM	300 Gal	N/A	1000 Ft	800 Ft	N/A	N/A	1	3	16
	D	5-Type 4	50 GPM	200 Gal	N/A	300 Ft	800 Ft	N/A	N/A	1	3	16

In the Incident Command System (ICS) terminology a “Strike Team” is defined as:

"Specified combinations of the same kind and type of resources, with common communications and a leader."

In some instances, due to the nature of an incident, Task Forces may be formed. A Task Force is defined as:

> **"A group of resources with common communications and a leader, that may be pre-established and sent to an incident, or formed at an incident."**

It is important you understand the difference between Strike Teams and Task Forces. An engine strike team is a specified number (5) and type of engines (Type I, II, III or IV), assembled for a tactical assignment on an emergency. A Task Force could be any combination of engines, mixed with other types of suppression and rescue resources. An example of a Task Force is two engines, a ladder truck, and an ambulance, with a leader.

An OES Engine Strike Team will consist of five engines, Type I or Type II, and a Strike Team Leader.

If you are a Strike Team Leader, Company officer, or a firefighter, many thoughts will flash through your mind when your department is assigned to a major emergency.

- If you do not have an OES engine assigned to your department, which engine (type) should respond?
- What personal items and clothing do you need to pack?
- Is all personal protective equipment (PPE) needed? Wildland and Structural?
- Will your strike team respond together or will you assemble at the emergency?
- Do you know where the incident is located? How will you get there?
- Do you need an Incident Order Number and Request Number?
- Can you communicate with your supervisor? Radio? Cell Phone?
- Who do you contact if you have a problem enroute to the emergency?
- On arrival, who do you report to?
- Will you need to complete special forms?
- Will an OES Assistant Chief be at the incident?

The list of questions you may ask yourself may be endless. The purpose of this document is to present the information you need to answer these questions. **Our goal is to prepare you to respond to any incident and perform the tasks you have been trained for.**

RESPONSE PREPARATION

Many fire departments in California have developed STRIKE TEAM KITS, which may be carried in a staff vehicle or on an engine. You may also wish to develop a checklist to assist you before leaving on an assignment that will require you to travel long distances and be of an extended duration.

> ***REMEMBER: It may be some time before you eat and get a place to sleep. You can get wet, dirty, and cold. Be prepared to take care of your personal needs. Being properly prepared strengthens personal confidence and security.***

NEEDS

- Credit Cards - Fuel, Personal, ATM, telephone calling card.
- Money - to be used for food, phone calls, other needs while traveling to and from the incident.
- Change of clothes, underwear, socks, and proper footwear.
- Personal items: toothpaste, toothbrush, shaving gear, toilet paper, bandanna, towel, replacement eye glasses/contact lens, etc.
- Medicine or medication, if required.
- Canteen, non-perishable food (freeze dried or MRE), canned juices, etc.
- Sleeping bag, blankets, cot, or sleeping pad.
- Safety equipment: Structural and wildland turnouts, helmet, gloves, fire shelter, goggles, boots (high top, all leather, lace-up, sewn lug sole), etc.
- Breathing apparatus (with spare bottles).
- First Aid Kit, eye-wash, aspirin, snake bite capability.
- Flash light, extra batteries.
- Portable radio (with White Fire & CALCORD frequencies), extra batteries, charger.
- Cellular telephone, pager, etc., extra batteries, chargers.
- Maps: AAA, Thomas Brothers, topographic, etc.
- Belt weather kit.
- Compass, GPS device, clipboard, tape, pencils, flagging, etc.
- Other items you may require for a long assignment.

NOTE: Don't forget the apparatus and its needs. If not carried, bring:

- Extra engine oil, transmission fluid.
- Engine drive belts.

It is important that you know the proper procedures to follow in the event problems develop while enroute or returning from a Strike Team response. Do you have the authority to purchase fuel, food, motel accommodations, or to repair apparatus and equipment? If you do not have the authority, it is important you know whom to contact for assistance. This document will address OES policies and procedures that apply to fire departments assigned an OES fire engine. In any case, if you have an emergency, contact the closest fire agency for temporary assistance. It is extremely important that you notify your Operational Area Fire and Rescue Coordinator (dispatch center) if you encounter problems on the road. They can make necessary arrangements, provide direction, and contact your department for you.

You should have these phone numbers with you at all times:

1. Operational Area Fire and Rescue Coordinator Dispatch Center

2. Regional Fire and Rescue Coordinator Dispatch Center

3. OES Fire and Rescue Branch, Sacramento, (916) 845-8711, 24-Hour Number (916) 845-8911

DUTIES AND RESPONSIBILITIES

The Strike Team/Task Force leader selected to command the strike team **SHOULD BE AN EXPERIENCED CHIEF OFFICER**, knowledgeable in both structural and wildland fire control. Personnel responding to a Forest Agency request for overhead positions shall meet the training requirements established for the ICS position to be filled. (Reference: NWCG 310-1) Most fire departments, with the assistance of their Operational Area Fire and Rescue Coordinator, take part in Strike Team/Task Force Leader (Engine) training classes. Following successful completion of class, individuals may be placed on a list as a Strike Team/Task Force Leader (Engine) (or as a Trainee), if authorized by the Chief of their department. Strike Team/Task Force Leader "lists" are normally maintained by the Operational Area Fire and Rescue Coordinator's dispatch center.

The Strike Team/Task Force Leader (Engine) is Responsible for:

1. The overall safety and condition of the strike team, personnel and equipment.

2. The movement of the strike team traveling to and returning from the emergency.

3. Operational deployment of the strike team at the incident, as directed by the Incident Commander, or other member of the Incident Management Team.

4. Familiarity with strike team operations, including assembling, responding, and directing the actions of the assigned units, keeping the team accounted for at all times.

5. If the strike team is dispatched on an Initial Attack basis, assembling the units at the incident.

6. Contacting the OES Assistant Chief (your agency representative) for assistance with problems encountered on the incident, including mechanical, operational, or logistical issues.

7. Ensuring your vehicle has adequate communications capability. (See Appendix A. (Fire Service Field Operations Guide, ICS 420-1) You should have all White Fire frequencies (White 1: 154.280 MHz, White 2; 154.265 MHz, White 3: 154.295 MHz), CALCORD 156.075 MHz, or at minimum a common frequency with all engines in your strike team.

   Note: The use of CALCORD must be approved through the Telecommunications Branch, OES Headquarters, 3650 Schriver Ave., Mather, CA 95655. Contact OES Fire and Rescue Branch, Sacramento, for information and instruction booklet.

   Description: The California On-Scene Emergency Coordination System (CALCORD) is established to provide common radio frequencies to be used statewide by state and local Public Safety and Special Emergency agencies during periods of person caused or natural disasters or other emergencies where interagency and/or interdisciplinary coordination is required.

   It operates under appropriate Federal Communications Commission Rules and Regulations and is administered by the State of California through the Office of Emergency Services. The Office of Emergency Services Telecommunications Advisory Committee exercises general supervision and disciplinary control.

   CALCORD Utilization: CALCORD will be used in mobile and portable units at the scene of any emergency incident requiring coordinate action by more than one agency. These agencies must be eligible to operate in the Public Safety or Special Emergency Radio Services. It is intended that this System be used to facilitate communications when the Incident Command System is used. Use of this System will be limited to emergency operations only, with the exception of tests and drills.

8. Submitting all Apparatus Inventory (OES engine only) and Emergency Activity Record (F-42) forms for each engine company to the OES Assistant Chief at the incident. If you are unable to contact an OES Assistant Chief, submit all forms to the Operational Area Fire and Rescue Coordinator when you return to your home base. The Operational Area Fire and Rescue Coordinator will forward them through Region, OES Headquarters in Sacramento.

9. The safety of all personnel and apparatus during response, emergency operations, or while in staging areas, mobilization center, and return to home jurisdictions.

10. Maintaining positive public relations for OES, the incident, the agencies represented on your Strike Team/Task Force, and the California Fire Service.

Simply stated, the Strike Team/Task Force Leader (Engine) must have the capability and experience for managing, coordinating, and directing the actions of fire crews/companies at a wide variety of emergency situations. This includes maintaining all required records, and ensuring the logistical needs of all personnel are met during the entire activation of the strike team/task force.

A Strike Team/Task Force may, at the discretion of the local agency, include a Strike Team/Task Force leader trainee as a reimbursable member of the unit. The trainee will be covered under a Strike Team/Task Force order-request number and will be identified on a separate OES F-42. The Strike Team/Task Force leader trainee should check in with the Planning Section or an Incident Training Specialist. The Strike Team/Task Force Leader Trainee shall travel with the Strike Team/Task Force in a vehicle from the existing Strike Team/Task Force and will not be reimbursed for the use of a separate trainee vehicle. Personnel filling Strike Team/Task Force leader (trainee) positions shall be certified at the Strike Team/Task Force leader (trainee) level per Wildland Fire Qualification NWCG 310-1 Sub System Guide or the California Incident Command Certification System (CICCS)

OPERATIONAL PROCEDURES

The Strike Team/Task Force Leader will receive instructions at the time of dispatch by the Operational Area Fire and Rescue Coordinator Dispatch Center. Information should consist of the following:

I. INCIDENT ASSIGNMENT

A. **Incident Name, and type**, if known; i.e., "Pinecrest Fire, Interface fire with structural threat".

B. **Incident Order Number** - You will receive an Incident Order Number (example: CA-TGU-02791) if CDF, USFS, BLM, or NPS is the requesting agency. If local government is the requesting agency you may receive this number after arrival at the incident. Enter this number on the Emergency Activity Record (OES Form F-42).

C. **Request Number** - Associated with the Incident Order Number, you must receive a Request Number (example: E-202). Enter on the Emergency Activity Record (OES Form F-42).

D. **Reporting Location and Travel Route** - Obtain detailed information, if needed; i.e., "Pinecrest Staging Area, Pasadena Civil Defense Center, 2738 New York Avenue, Pasadena, California".

Westbound I-210 Freeway to Altadena Off Ramp, north to New York Avenue. Follow signs when approaching staging area. Report to Captain John Doe, Pasadena Fire Department. Check-In on arrival. Radio contact, "Pinecrest Staging, on White Fire - 154.280"

E. **Obtain Strike Team Number.** The number is your identification and will be used to track and direct all movements of your strike team, both emergency and non-emergency. (The Strike Team Number consist of a 3-letter designator; a 4-digit number, and a letter, i.e., OES 2801 A or XAL 2004 A)

For example, OES ST 1801-A, would be identified as "OES STRIKE TEAM ONE EIGHT ZERO ONE A"

DO NOT CHANGE OR ALTER THIS NUMBER; it is yours from the beginning to the end of this period of mobilization.

F. **Communication Frequency** - You will receive the radio frequency for your contact point on arrival at the incident; e.g., Staging Area 154.280 (White One) or Division A Supervisor 154.295 (White Three) for a line assignment.

II. INITIAL ATTACK, IMMEDIATE, OR PLANNED NEED

The Requesting Agency should determine whether a Code-3 response is necessary. For INITIAL ATTACK or IMMEDIATE NEED a Code-3 response is generally warranted for response within an Operational Area or to an adjacent Operational Area to PROTECT LIFE OR PROPERTY imminently threatened by the event.

If the assignment is a PLANNED NEED and will not begin until the next operational period, or a designated time subsequent to the next period, it will be determined how much time is needed for the resources to prepare and respond, and whether they will assemble at an established rendezvous point or at the incident. This will in turn determine the departure time of the resources. If time permits, it is desirable for the resources to assemble and be briefed by the Strike Team/Task Force Leader prior to arriving at the incident.

MODE	**TIME FRAME**	**LOCATION OF INCIDENT**
INITIAL ATTACK Usually a code-3 response for protection of life and property	Instantly or as quickly as possible	• Closest available mutual aid resources within operational area or adjacent operational area. • Resources will normally rendezvous ***at the incident.***
IMMEDIATE NEED May or may not be a code-3 response	Responding within 30 minutes	• Mutual aid resources respond to incident within 30 minutes from time of dispatch within operational area, adjacent or other operational area. • May or may not rendezvous prior to departure.
PLANNED NEED Normally not a code-3 response	• Planned incident arrival time determines departure time	• Mutual aid resources respond within the operational area, adjacent operational area, region or state- as needed for the next operational period or as determined by requesting agency. • Usually will rendezvous before departure and travel together

III. AT THE RENDEZVOUS POINT

Provide Strike Team/Task Force Briefing

1. Introduce you, the Company Officers, and team members.

2. Inform the team what you know about the incident, and the strike teams assignment. Determine your response route; consider time of day and fueling stops. Select one Engine Company Officer to "bring up the rear" while traveling, and to lead the Strike Team/Task Force in your absence. Identify a common radio frequency for enroute strike team communications.

3. Conduct an inspection of the strike team to determine crew size and capability, apparatus capability, special equipment carried, communication capability, etc.

   NOTE: All OES engines are equipped with an OES Fire Net Radio, which operates in conjunction with a mountaintop repeater system. Additionally, OES engines will have White frequencies and Local frequencies. Some OES engine assignees have installed their own department radio with local frequencies. Should it be necessary to communicate with an Operational Area or Regional Fire and Rescue Coordinator Dispatch Center, use the OES Fire Net radio in one of the OES engines.

4. Identification - OES Strike Team Leaders should have an OES Strike Team Leader Kit. If you do not have one contact the OES Assistant Chief assigned to the incident. The kit includes:

   a. Operations Bulletin #8 (OES Emergency Activity Record)

   b. Form F-42 (OES Emergency Activity Record)

   c. Apparatus Inventory forms (OES Form F-157), including sample

   d. Form ICS-214, Unit Log

   e. Strike Team Leader Control Record

   f. Bumper Stickers

   g. Strike Team/Task Force Leader (Engine) Manual

   This packet of information is intended to make the required record keeping easier; however, it should not hamper your primary mission if you do not receive the "kit."

5. Instruct company officers to inventory OES engines after release (or reassignment to another incident). The OES Assistant Chief, Fire and Rescue Coordinator on scene will verify inventory. The F-42 (Emergency Activity Record) must also be completed. Enter the Strike Team Number, Incident Order Number and Request Number, along with the signature and title of the requesting agency official. When completed, submit forms to the OES Assistant Chief.

At time of response, you may be requested to respond directly to a Division/Group

Supervisor for immediate assignment. The Strike Team/Task Force Leader should Check-In and obtain a briefing from the Division/Group Supervisor as soon as possible after arrival.

IV. ACTIVE ASSIGNMENT

A. Reporting Location - Obtain detailed information.

B. Incident Information - you should receive the following at time of dispatch:

1. Incident Type and Check-In location
2. Name of incident, if known
3. Incident Order and Request Number
4. Your Strike Team/Task Force number
5. Communications frequency (travel and tactical)
6. Name of person to whom you are to report and radio call number

NOTE: Use clear text (no radio codes) and common terminology in all radio transmissions.

The following is a position statement for a Strike Team/Task Force Leader. It will serve you as an operational checklist at an incident. This information is found in the Field Operations Guide, Operations Section, Chapter 6 (ICS-420-1).

The Strike Team/Task Force Leader reports to a Division/Group Supervisor and is responsible for performing tactical assignments assigned to the Strike Team or Task Force. The Leader reports work progress, resource status, and other important information to a Division/Group Supervisor, and maintains work records on assigned personnel.

- Review Common Responsibilities, found in Chapter 1 of the Field Operations Guide.
- Review assignments with subordinates, and assign tasks.
- Monitor work progress and make changes when necessary.
- Coordinate activities with adjacent strike teams, task forces and single resources.
- Travel to and from active assignment area with assigned resources.
- Retain control of assigned resources while in available or out-of-service status.
- Submit situation and resource status information to Division/Group Supervisor.
- Maintain Unit/Activity Log (ICS Form 214).

• WILDFIRE COMMAND CHECKLIST •

SIZE-UP

Major factors:
- Life hazard(s)?
- Fuel, Topography & Weather?
- Time of fire start? Type of fire?
- General Location? Where is the fire?
- What is burning? What will burn?
- Resource & Situation Status & Avail?

FIRE BEHAVIOR

Relative Humidity (RH)
- Cut in half for each 20° rise in temp
- Fires burn well < 20%; explosive <10%

Wind (Direction & velocity)
- Rate of spread doubles when wind doubles above 10 MPH

Ignition Component (IC)
- Probability of fire start; scale: 0 to 100%
- Spotting >50%; >80%, spots certain

Burning Index (BI)
- Difficulty of control in worst case
- Flame length = BI ÷ 10; scale: 0 to infinity (×)

Rate of Spread (ROS)
- ROS at head of fire, feet per min
- Doubles for each 20% increase in slope
- Doubles as wind doubles above 10 MPH

INCIDENT ACTION PLAN

• PLAN Incident
- Do Size-Up; Complete ICS Form 201
- Order & assign personnel
- Order Immediate Need resources
- Order next operational period resources
- Order support (water, feeding, foam, etc.)

• ORGANIZE Incident
- Create Branches, Divs/Grps, ST/TF
- Assign Command Staff positions

• DIRECT Incident Operations
- Give assignments & ensure understanding
- Supervise activities with key to safety

• CONTROL Incident Operations
- Compare accomplishments to planned activities
- Adjust plan, if needed; be flexible

SAFETY

Most critical factor-SEE OTHER SIDE
Wear full personal protective equipment
Possess & know how to use fire shelter

PRODUCTION CAPABILITIES

Engines-progressive Hoselay
- Min. 3 engs, 1 WT & 9 FF's per lay
- Min. 1.5" or 1.75" hose & 50 GPM
- Laterals every 200'; Ave. 4 mins/100'

Dozers-line construction
- Single pass line = 1/2 mi or 900 yds/hr
- Ask operator; use swamper
- Production varies:
  - Veg ht, topog, dozer condition, operator

Fire Crews-line construction
- 15 FF crew production per hour:
- Grass (2' ht): 900' per hr, 3' wide line
- Med brush (4.5' ht): 450'/hr, 6' wide line
- Hvy brush (6' ht): 300'/hr, 9' wide line
- Heav'st brush (9' ht): 225'/hr, 12' wide line

Air Tankers
- Type 1: 3000+ gallon capacity
- Type 2: 1800+ gallon capacity
- Type 3: 600+ gallon capacity
- Drop patterns: salvo, trail, split

Air Tanker Safety Rules
1. Move out of area if possible
2. Avoid large, old trees/dead limbs
3. Never stand up in path of drop
4. Get behind solid object
5. Lie face down, face oncoming drop, hold tool at side, spread feet, helmet-goggles down, cover face & support drop

Copter Tanker Safety Rules
1. Stay in full view of pilot
2. Approach/depart on downhill side
3. Chin strap fastened or helmet at side
4. Carry tools horizontally
5. Fasten seat belt
6. Follow instructions of pilot
7. Never throw anything from copter

Revised May 13, 2001

Wildfire Command Checklist courtesy of Division Chief John Hawkins, CDF-Butte County Fire

10 STANDARD FIRE ORDERS

FIRE WEATHER & BEHAVIOR

1. **Keep informed on fire weather conditions and forecasts.**
2. **Know what your fire is doing at all times. Observe personally, use scouts.**
3. **Base all action on current and expected behavior of the fire.**

SAFETY

4. **Have escape routes and make them known.**
5. **Post a lookout when there is possible danger.**
6. **Stay alert. Keep calm. Think clearly. Act decisively.**

COMMUNICATIONS & CONTROL

7. **Give clear instructions and be sure they are understood.**
8. **Maintain prompt communications with your firefighters, your supervisor, and adjoining forces.**
9. **Maintain control of your forces at all times.**

SUMMARY

10. Fight fire aggressively having provided for safety first.

18 SITUATIONS THAT SHOUT "WATCH OUT"

1. Fire not scouted or sized-up.
2. Fire in country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behavior.
5. Uninformed on strategy, tactics, and hazards.
6. Instructions and assignments not clear.
7. No communications link with crew members or supervisor.
8. Constructing a line without a safe anchor point.
9. Building fire line downhill with fire below you.
10. Attempting a frontal assault on the fire.
11. Unburned fuel between you and the fire.
12. Cannot see main fire and not in contact with anyone who can.
13. On a hillside where rolling fire can ignite fuel below you.
14. Weather getting hotter and drier.
15. Wind increases or changes direction.
16. Getting frequent spot fires across line.
17. Terrain and fuels make escape to safety zones difficult.
18. You feel like taking a nap near the fire line.

LCES

Lookouts

Must be experienced & able to determine problem
Must be able to see FF's & Fire

Communications

Must be able to tell FF's of impending problem
Must have communications

Escape Routes

Must have one & desirably two escape routes
Must lead to safety zones

Safety Zones

Areas where fire shelters not needed
Consider topographical position
Consider fire environment on zone location

COMMON DENOMINATORS OF FIRE BEHAVIOR ON FATAL & NEAR-MISS FIRES

1. Most incidents happen on smaller fires or on isolated sections of larger fires.
2. Flare-ups generally occur in deceptively light fuels, such as grass, herbs, and light brush.
3. Most fires are innocent in appearance before unexpected shifts in wind direction and or speed result in "flare ups". In some cases, tragedies occur in the mop-up stage.
4. Fires respond to large and small scale topographical conditions, running uphill surprisingly fast in chimneys, gullies, and on steep slopes.
5. Some suppression tools, such as helicopters or air tankers, can adversely affect fire behavior. The blasts of air from low flying helicopters and air tankers have been known to cause flare-ups.

DOWNHILL-INDIRECT LINE CONSTRUCTION GUIDELINES

Downhill/Indirect line construction in steep terrain and fast burning fuels should be done with extreme caution. Direct attack methods should be used whenever possible. The following guidelines should be followed:

- The decision is made by a competent firefighter after thorough scouting.
- Downhill line construction should not be attempted when fire is present directly below the proposed starting point.
- The fire line does not lay in or adjacent to a chimney or chute that could burn out while a crew is in the vicinity.
- Communication is established between the crew working downhill and the crews working toward them from below. When neither crew can adequately observe the fire, communications will be established between the crews, supervising overhead, and a lookout posted where the fire's behavior can be continuously observed.
- The crew will be able to rapidly reach a zone of safety from any point along the line if the fire unexpectedly crosses below them.
- A downhill line should be securely anchored at the top. Avoid underslung line if at all practical.
- Line firing should be done as the line progresses, beginning from the anchor point at the top. The burned out area provides a continuous safety zone for the crew and reduces the likelihood of a fire crossing the line.
- Be aware of and avoid the "WATCH OUT SITUATIONS!"
- Full compliance with "THE STANDARD FIRE ORDERS" is assured.

Revised May 13, 2001

Wildfire Command Checklist courtesy of Division Chief John Hawkins, CDF-Butte County Fire

PROCEDURES AND POLICIES -- OES ENGINES

The following procedures and policies apply to OES Engines. If you have questions or doubts regarding any procedures, contact the OES Assistant Chief at the scene, or contact the OES Fire and Rescue Branch in Sacramento, at (916) 845-8711 (24-Hour number: (916) 845-8911)

1. The petroleum credit card carried on the OES engine is to be used **ONLY** for the assigned unit, and is restricted to certain purchases. (See OES Operations Bulletin #11 - *Credit Card Use*, in the OES Engine Log Book)

    - Gasoline or diesel fuel
    - Fan belts (emergency purchase only)
    - Tire repairs (emergency repair)

2. Repair of OES fire engines, in excess of $50.00, must have OES Fire and Rescue Branch approval.

3. OES fire apparatus are Type I or Type II Engines, and are commonly requested for structural protection in a wildland or urban interface fire environment. They are not designed for operations on narrow, unsafe roads, cat or brush trails. Use good judgment when deploying OES fire apparatus during emergency operations. Plan ahead.

4. Water tanks on OES fire engines **are not** to be emptied to facilitate a faster response.

5. Only qualified members of the assigned department shall drive and operate OES fire engines (agency insurance coverage).

6. OES Engine Log Books are carried on all OES Engines. Record all losses, repairs, and maintenance. When completing the OES Fire Report, attach all fuel delivery receipts and forward to OES, Sacramento, monthly.

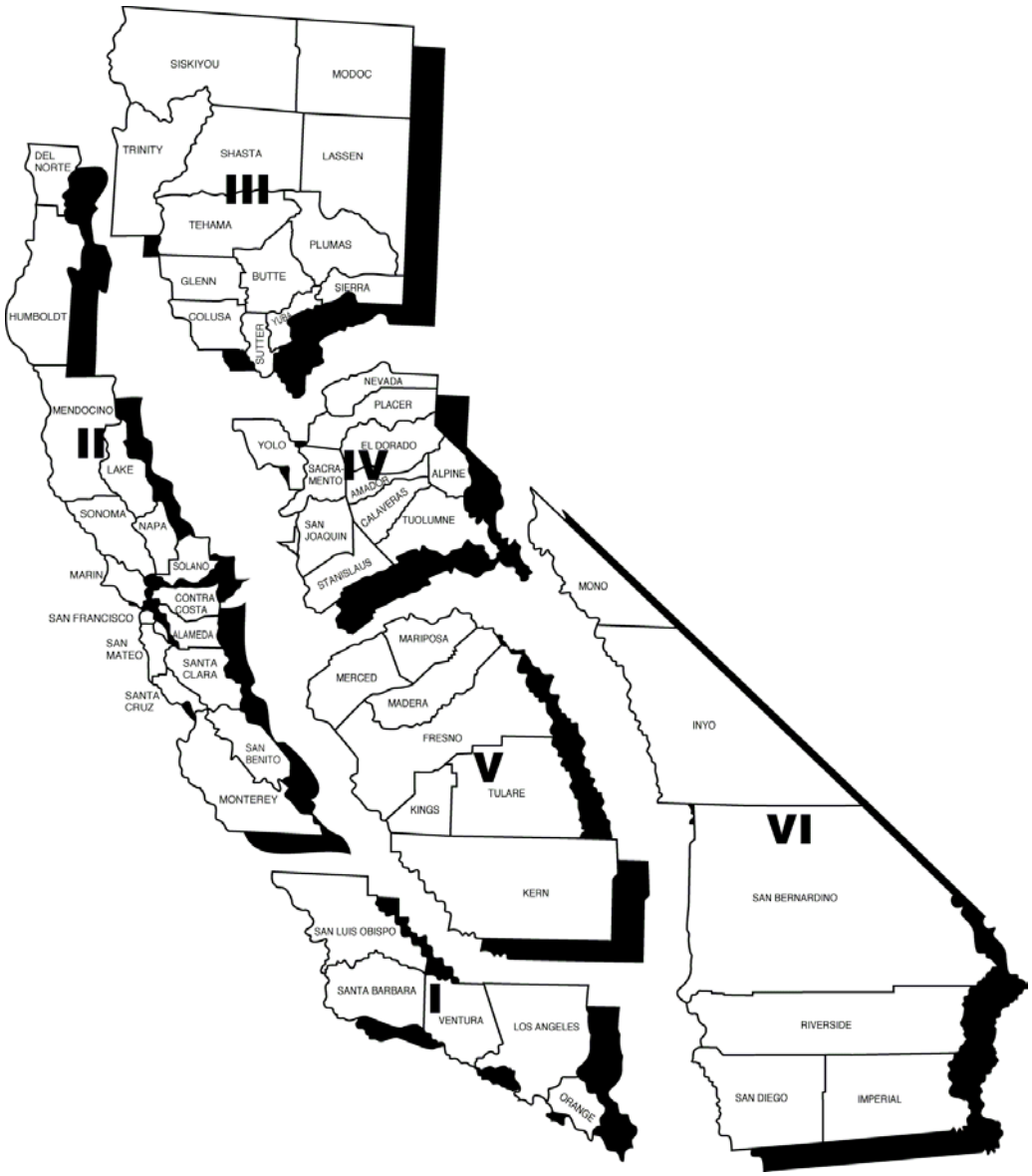
7. **WARNING** -- OES engines are heavy fire apparatus. Avoid excessive speed, especially on grades. Frequent brake application causes brake fade and the brake system will be ineffective! Have qualified maintenance personnel adjust brakes on a regular basis!

8. The purchase of tires and batteries requires approval of the OES Fire and Rescue Branch. It is acceptable to borrow (if possible) a tire or battery from a local fire agency during an emergency response. The OES Fire and Rescue Branch will replace the local fire service agency's stock as soon as possible. During a major fire emergency, tire service is normally available at or near the incident base (contact Ground Support unit).

    Your Operational Area Coordinator Phone Number:_____

    Your Operational Area Dispatch Phone Number:_____

OES FIRE and RESCUE MUTUAL AID REGIONS



OES 24 HOUR -- (916) 845-8911

ENGINE STRIKE TEAM/TASK FORCE RESPONSIBILITIES

DO NOT:

- **DO NOT** take lawn chairs, hammocks, large radios or TV. Pets or animals are not allowed. YOU ARE RESPONDING TO AN EMERGENCY.

- **DO NOT** bring non-fire related equipment on engines (i.e. mattresses, chairs, etc.) If it doesn't fit in the compartments, do not take it.

- **DO NOT** have major repairs done on OES engines, without OES authorization. You may have to pay the bill yourself. This includes tires and batteries. (Refer to "Procedures and Policies- OES Engines" in this manual)

- **DO:**

- **DO** provide staffing of three or four firefighters, safely belted in the cab of the apparatus. **NO PERSONNEL SHALL RIDE ON TAILBOARD**. All personnel must have full turnouts for structure fires, and all required wildland personal protective equipment. All members will wear and use PPE when appropriate. Consider double layering with cotton under garments

- **DO** take a change of clothing, toothbrush, soap, towel, sleeping bag, and air mattress. Rations should be carried on the engine for emergencies. Take cash, credit cards and get receipts for all purchases. Do take an ice chest for crew, to be stored in compartment. A small portable radio/TV is permissible. Bring reading material, camera, etc. (Caution, lost or damaged personal items may not be replaced or repaired by the Fire Agency)

- **DO** notify your OES Operational Area Dispatch Center when you are enroute and when you arrive back to your home station.

- **DO** treat all firefighters, officers, and the public with respect. You might not always agree to the way things are being done. Keep your eyes open and learn.

- **DO** contact your fire department by phone once every 24 hours. The person in charge of the engine should report to headquarters the following information:

    1) Condition of personnel
    2) Condition of equipment
    3) Location -- who or where you are assigned
    4) Length of stay or assignment, if known
    5) Relay messages to be passed on to families or staff

- **DO** call OES Fire and Rescue Branch Headquarters by phone or radio, at (916) 845-8711, or 24 Hours at (916) 845-8911, if a mechanical problem occurs on the way to an assignment. They will advise you how to handle the problem.

CODE OF CONDUCT
FOR STRIKE TEAMS

1. **No alcohol or drugs will be transported or consumed at any time.**

2. **Normal radio procedures will be utilized. Radio traffic between units will be kept to a minimum.**

3. **This is not a vacation.**

4. **Know whom you are working for.**

5. **Limit the procurement of equipment to what is needed.**

6. **All equipment issued at the incident must be returned before you are demobilized. Theft of equipment is a crime.**

7. **Crews will maintain a state of readiness when not assigned.**

8. **Recreation will be limited to out-of-service hours.**

9. **Maintain and wear all safety clothing.**

10. **Wear the proper uniform while in the incident base.**

11. **Your actions are a reflection of your organization.**

12. **Do not enter any residence without the owner's permission except to fight a fire in that structure. Respect the property of the residents you are protecting.**

TACTICS AND SAFETY - (This is meant to be a guide only.)

REMEMBER -- A WISE PERSON IS ONE WHO HAS LEARNED FROM HIS OWN EXPERIENCES AND THE EXPERIENCE OF OTHERS.

SUPPLEMENTARY INFORMATION NO. 1

Fire Engine Capabilities and Tactics

The following is submitted for your consideration and is taken from the Strike Team Leader Course
I-334, Supplementary Information. (rev. 6-86)

1. THE CAPABILITY OF AN ENGINE ON A WILDLAND FIRE IS DEPENDENT ON SEVERAL THINGS; INCLUDING THE ENGINE TYPE, PERSONNEL, AND TOOL AND EQUIPMENT COMPLEMENT.

A. Structural or wildland and its hose complement:

1) Single or double jacket hose

2) Amount of 1" and 1½"

3) Reel or hard lines

B. Water tank capacity:

1) 200 gal or less (type IV or Patrol)

2) 200 to 300 gal (type III)

3) 400 gal or more (type II or I)

4) 650 - 900 gal (OES)

C. Open or closed cab:

1) An open cab is very dangerous on wildland fires. For example, there has never been a recorded instance where a firefighter was burned to death in a closed vehicle, but numerous firefighters have been burned, out in the open, or on the back of an engine.

2) Hose bed -- is it covered and with what? (NOTE: Don't load hose bed with out of county bags, sleeping bags, etc, which could ignite from burning ambers.)

D. Conventional or 4-wheel drive:

1) Depending on terrain, a 4-wheel drive may be required.

2) Remember: 4-wheel drive engines may require longer travel time on the highway.

3) They are not always as readily available as structural engines.

E. Number of Personnel: You cannot expect a 3-person crew to complete a progressive hoselay in the same time as a 4 or 5 person crew.

F. Mechanical condition:

1) At times, strike teams are assigned relief engines (not first-line) limiting their capability.

2) Engines may not be equipped with adequate air cleaner protection (flying embers in paper elements -- motor quits).

3) Tires may not be adequate for off-road use.

G. Pump type:

1) Main pump (usually only for stationary pumping).

2) PTO (may by capable to pump and roll).

3) Auxiliary pump (best for pump and roll).

H. Equipment complement (number and type of hand tools)

I. Training and experience of crew members will determine the company's capability.

2. THE TYPE OF ASSIGNMENT FOR AN ENGINE OR STRIKE TEAM WILL HELP YOU DETERMINE THE BEST-SUITED ENGINE FOR THE JOB.

A. Mobile attack on grass fires:

1) Ability to pump and roll

2) Shorter wheel-base and high road clearance engines are generally better

B. Stationary pumping into hose lines.

1) Length of hoselay may indicate the need for a larger water tank if water supply is being shuttled.

2) Hoselay elevations may require a pump that will pump over 450 PSI pressure.

C. For primarily off-road pumping, it is generally best to use brush engines.

D. Structure protection:

1) Water tank capacity is important -- the larger, the better. For example, a strike team of OES engines can operate longer without replenishing their water because they have larger water tanks (650 - 900 gallons)

2) Depending on the terrain and the area you're working, smaller and shorter wheel-base engines may be better due to narrow winding roads and short, steep driveways.

3. FIRE ENGINE AND STRIKE TEAM TACTICS ON WILDLAND FIRES.

A. Strike teams may be dispatched to staging areas or directly to the fire:

1) On arrival at the staging area, the Strike Team Leader must check in with Staging Area Manager and/or the Check-In Recorder.

a) A staged strike team is considered an available resource and must be able to respond within **three minutes**. Keep the Strike Team together in the staging area.

b) A staged strike team is under the direct supervision of the Operations Section Chief.

2) A strike team responding directly to a fire assignment will report to a Division/Group Supervisor. The Strike Team Leader must report the Strike Teams arrival (by radio or in-person) to obtain their assignment.

B. Deployment of equipment:

1) When in a staging area, keep crews together. Park - ready to respond.

2) When assigned to fireline, engine deployment can be critical.

a) Always have an escape route.

(1) Back engines in

(2) Use buildings or natural barriers for protection.

(3) Don't park at top of draws, chimneys, or natural funnels.

b) Try to keep engines working as a team. Don't spread them out too far.

c) The Strike Team Leader should survey the area to check for special conditions or hazards.

d) Unless absolutely necessary, do not have engines lay long hoselays. This cuts mobility and could burn up a lot of hose.

C. Use of water:

1) Water conservation -- with hydrant supply.

a) Consider the effect of heavy water consumption on other lines taking water from the same main.

b) What about the adjacent water mains? Are other fire companies working out of your sight? What about residents or firefighters taking water from your supply using garden hoses?

c) Do not wet down vegetation ahead of fire; extinguish only that which is absolutely necessary. Do not waste water on shingle roofs -- they dry very fast. Wet down (Preferably with class A foam), immediately before the fire arrives, or as burnout begins.

d) Let everything burn that is not vital to fire control or not an exposure hazard to objects of value. You may not be able to protect everything. Prioritize your targets.

2) Do not lay line just because there is a lot of fire. Have a valid reason. If lines have to be left at a fast moving fire, take the fittings with your apparatus, if possible.

3) Water use with tank supply. Conserve limited supplies. Use hand tools in conjunction with a hose line when working on brush.

4) Water tender use. Where water supply is a problem, Strike Team Leaders, Division Supervisor, or Operations Chief should order sufficient water tenders to keep strike teams adequately supplied.

a) Depending on travel time and distance, one or two water tenders can usually keep a strike team supplied.

b) Water conservation is a must when working with water tenders.

D. Protecting structures (ahead of fire):

1) Close windows, garage doors, etc.

2) Leave lights on

3) Put combustible garden furniture in garage (or in the house). Place furniture so that it will not expose a structure.

4) Move wood piles away from structures.

5) Move combustible fences away from structures.

6) Chop down highly combustible shrubbery and place it where it will not expose a structure, e.g., juniper, cypress hedges, small highly combustible trees, etc.

7) Ask residents to move lace-type curtains from windows on exposed sides. Heavy drapes may be advantageous.

8) Remove all combustibles from vicinity of LPG tanks.

9) Shut off gas.

10) Shut off electricity where practical. CAUTION: Private or home water systems may rely on residential electricity to operate well pumps, etc.

11) Have civilians place stepladders, etc., on front porch or where readily visible.

12) A 24-foot extension fire department ladder can be split into two straight ladders.

13) Hook up available homeowner garden hose and test for water pressure. Use to replenish the tank supply, not fight fire.

14) Remove leaves/needles from roofs and gutters.

E. Protecting structures (when fire hits):

1) A structure seldom will burst into flames; it usually will start as a small fire in one or more spots. Some possible ignition sources are:

a) Blowing sparks trapped under shingle or shake roofs.

b) Heat or flames trapped beneath the eaves of a roof.

c) Burning debris blown through ground vents or attic vents.

d) Windows broken from heat and drafts.

e) Doors or windows left open.

f) Exposures from burning (remove if possible and desirable) objects.

(1) Shrubbery, trees

(2) Combustible garden furniture

(3) Fences

(4) Wood piles

(5) Automobiles

(6) Adjacent structures

(7) Combustible rubbish

2) Considering construction, topographical factors, equipment, available personnel, and fire travel, survey ahead of the fire and give priority to protection.

3) Some common errors:

a) Laying hose lines too far ahead of the fire or too much hose and tiring out firefighters. Meet the fire where a good stand can be made.

b) Excess fire equipment, when less equipment will handle the job.

c) Parking equipment where it is unnecessarily exposed -- park across road, behind house, etc.

d) Laying unnecessary lines.

F. Civilian motor vehicles:

1) Put in garage -- preferably heading out.

2) Close all windows.

3) Park where they are least exposed. But not in a driveway where fire apparatus could operate or hose lines could be laid. Do not park on a narrow street -- front lawn would be better, if possible.

G. Protecting structures:

1) Wet down shingle roofs and adjoining property only when ample water is available, fire is approaching, and you are sure depleting the water supply will not jeopardize adjoining areas.

2) If fire is too hot, retreat into structure temporarily, then extinguish burning exterior.

3) Do not face an intense fire without a specific purpose. Retreat to protection (behind fence, ledge, house) and go to work at a more favorable moment. Let the fire run past, then attack residual fires.

H. Keep apparatus mobile. At a fast moving fire, it is called “bump-and-run”:

1) Move from structure to structure with the fire.

2) Leave a firefighter at difficult situations.

3) If the civilian owner is present, point out possible places of dangerous flare-ups before you leave.

4) Park behind a structure (from the anticipated flame front), heading out of driveway.

5) Park on roadway adjacent to structures. Choose between heading with direction of fire travel or heading towards a possible escape route.

6) When protecting structures and also making a stand along a road, make every effort to detail firefighters to prevent fires from spotting across.

7) "Fire out" (burn flammable vegetation) around structures where possible. Be aware of how your “firing out” may affect other exposures or firefighters.

I. Information for Civilians:

1) Normally, evacuation is a law enforcement function, leaving the fire department free to fight fire.

2) Encourage civilians, especially elderly or excitable individuals, to leave fire area on foot or in vehicles, if practical. CAUTION: civilian fatalities have occurred when private vehicles have been overrun by fire while exiting the area on mid-slope roads.

3) Inform civilians of the danger of running up hills, canyons, or draws ahead of moving fire.

4) Explain that, in almost all instances, a person is safe in a well-built structure when a fire sweeps past, even though it may eventually be destroyed.

5) If a civilian is determined to stay with his home, explain the value of

removing any exposures (furniture, shrubs, wood pile, etc.), how to protect himself, and how to handle a garden hose.

6) Try to impress parents/adults with the importance of keeping their family together. This reasoning sometimes assists the evacuation effort.

STRUCTURE TRIAGE

From NWCG Publication "Wildland Fire Suppression Tactics Reference Guide" NFES 1256

Structure triage is the sorting and prioritization of structures requiring protection from wildland fire. Triage can be required of anyone at any time on a wildland/urban fire incident.

The goal of triage is to do the most good with what you have and to not waste resources or time. It requires categorization or threatened structures as:

- Needing little or no attention for now
- Needing protection, but savable
- Indefensible

There are no absolute answers but five factors to help make a triage decision are:

- Firefighting safety
- The structure itself
- Surrounding fuels
- Fire behavior
- Available resources

Considering the following:

A. Firefighting Safety

1. Ingress/egress routes
   - One way/two way
   - Slope and steepness of road
   - Bridges
2. Power lines
3. Smoke/visibility
4. Hazardous materials
5. LPG and overhead fuel storage

B. Structure construction features, condition, and exposure

1. Roof
   - Combustible – wood shakes, tar paper, etc.
   - Non-combustible – title, metal, or fiberglass, etc.
   - Pitch-debris on roof or in gutters
2. Siding
   - Combustible – wood
   - Non-combustibles – metal, brick, etc.
3. Heat traps
   - Open gable
   - Vents without screens or non fire resistant screens
   - Overhanging decks
4. Windows

5. Size of building
6. Shape of building
7. Position on slope

C. Surrounding fuels

1. Size and arrangement
2. Age
3. Proximity to structure
4. Loading
5. Types
   - Resistant or flammable
   - Landscape/ornamental
   - Grass, brush, timber (palmetto, etc.)
   - Wood piles
6. Landscaping – railroad ties, wood fences
7. Defensible space, access
8. Yard accumulation
9. Flame or heat duration
10. Explosive – liquefied petroleum gas (LPG) tanks, diesel, or gas storage tanks.

D. Fire behavior

1. Rate of spread and direction
2. Topographic influence
3. Weather influence
4. Flame length
5. Spotting
6. Natural or other barriers

E. Available resources

1. Kind and type of equipment available
   - On site resources (water, equipment, ladders)
   - Location
   - When available
2. Capabilities and limitations
   - Mobility
   - Water/foam
   - Retardant

Structural Situations that Shout "Watch Out"

By Don Johnson, Rural Metro Corp. Phoenix, Arizona

1. Structures are wooden construction with shake shingle roofs
2. Access is poor, i.e. roads are twisting with sharp curves, narrow single lane roads, dead end roads, inadequate turning radius at road ends, etc.
3. You have inadequate water supplies to attach the fire.
4. Natural fuels are within 30 feet of the structures.
5. There are strong winds and erratic fire behavior is occurring.
6. Structures are located in a "chimney" or canyon situation.
7. There are panic-stricken publics in the vicinity (known or suspected).
8. Structures have open crawl spaces and contain added fuels under the structure.
9. Bridges in the vicinity are narrow and/or have light or unknown load limits.
10. There are propane tanks or elevated fuel tanks present (most rural situations have).
11. There are septic tanks and leach lines (most rural situations have).
12. There are garages with closed, locked doors.
13. The structure is burning with puffing vs. steady smoke emissions.
14. Windows of the structure are black or smoked over.
15. Windows of the structure are bulging.

SUPPLEMENTARY INFORMATION NO. 2

Wildland Hoselays

The following is submitted for your consideration and is taken from the Strike Team Leader Course
I-334, Supplementary Information. (rev. 6-86)

1. TWO BASIC TYPES

A. Simple:

1) Laid point-to-point dry, then charged when completed.

2) Typically used as a supply line.

3) No protection for crew when being laid.

B. Progressive:

1) Each length is charged as it is added.

2) Normally put in on fire perimeter; fire is suppressed as the hoselay progresses.

3) When needed, 1" lateral lines with tees are added every 200' to be used for subsequent mop-up.

2. HOSE USED

A. 1" and 1½" single jacket hose with light alloy couplings in 100' lengths.

B. Rolled single or double doughnut with brass and hose clamps, or on special hose packs.

3. RULES OF THUMB

A. Under average conditions assign at least three engines with at least nine personnel per hose lay.

B. Select the pumping engine based on tank capacity and pressure capability (head pressure can be critical in wildland hose lays; relay pumping might be required).

C. Allow sufficient engines or water tenders and sufficient travel time to provide a constant supply of water:

1) 2 min./mile for paved road

2) 4 min./mile for unpaved road

3) 15 min. for filling tank

D. Allow four to five minutes per 100' of hose for a progressive hoselay. This includes suppression time. Remember that steep terrain, thick fuel, and personnel fatigue can reduce this production rate.

E. A current study of production rates indicates that well trained crews may lay as much as 50' per minute in the initial attack stages of a fire.

F. Based on their minimum required hose complements, ICS Type 3 Engines are normally most suitable for this type hoselay.

4. HOSE LAY SAFETY

A. Avoid using booster lines and other 1" lines on extended hose lays in heavy fuels. Friction loss is too great there will be an inadequate volume of water to protect the nozzle operator in case of a dangerous intensifying of the fire. Combination nozzles providing a particulate fog pattern will add an extra measure of safety.

B. Always provide communications between the nozzle operator and the pumping engine.

C. Always have an anchor point for your hoselay. Avoid the danger and embarrassment of an outflanked line and burned hose!

FRICTION LOSS CHARTS

FRICTION LOSS - GPM TABLES

1" HOSE @ 50 PSI NP						100 PSI NP
TIP	1/8	3/16	1/4	5/16	3/8	3/8 COMB
FL 100'	1	2	5	12	25	40
GPM	3	7	12	19	28	42

1½" HOSE @ 50 PSI NP						100 PSI NP
TIP	1/4	5/16	3/8	1/2	5/8	5/8 COMB
FL 100'	1	2	3	10	25	44
GPM	12	19	28	50	81	116

2½" HOSE @ 50 PSI NP							
TIP	5/8	3/4	7/8	1	1-1/8	1¼	1½
FL 100'	1	4	7	10	17	25	50
GPM	80	117	160	209	265	325	472

FRICTION LOSS FACTORS 100' 2½" HOSE

TIP	FACTOR	50 PSI	100 PSI
7/8"	1/7 OF NP =	7	14
1"	1/5 OF NP =	10	20
1-1/8"	1/3 OF NP =	17	33
1-1/4"	1/2 OF NP =	25	50
1-1/2"	1 OF NP =	50	100

GPM METHOD 100' 2½" HOSE

GPM	100	150	200	250	300	350	400	450	500
F.L.	3	6	10	15	21	28	36	45	55

NP + FL + A ± H = EP

NP	-	TIP	-	50 PSI	COMB - 100 PSI
FL	-	2½"		2 LINES	1/4
				3 LINES	1/9
				4 LINES	1/16
		3/4"		HARDLINE	4 X FL 1" HOSE
A	-	5 PSI		25 PSI	80 PSI
		TEES		MONITOR	LADDER PIPE
		WYES		STANDPIPE APPLICATOR	
H	±	100' ELEV. - 43 PSI		5 PSI/FLOOR	
		50' ELEV. - 22 PSI			

LATERALS	NP FOR 1½" HOSE ONLY FL FOR EA. LAT. + 1½" LINE
LEADER PIPES	NP, FL FOR ONE 1½" ONLY GPM FOR BOTH NOZZLES
STAND PIPES	NP, FL FOR TOP FLOOR ONLY GPM FOR EACH NOZZLE
IDENTICAL L (SEP. DISCH.)	NP, FL FOR ONE LINE ONLY

HYDRANT CAPACITY	10% DROP - CAN ADD 3 LINES 15% DROP - CAN ADD 2 LINES 25% DROP - CAN ADD 1 LINE

RELAY PUMPING	FL @ RATED ENG. GPM X L.L. IP (INTAKE PRESS 20) ± H EP

Burnout vs. Backfire – Is there a difference?

*Over the years, the definition of the wildland fire terms Burnout and Backfire have become confused. To some agencies they are the same action, and the term is used interchangeably. To other fire organizations, the meanings have been reversed or changed altogether**. Burnout and Backfire do not mean the same thing.***

Burnout: (also known as burning out or firing out) involves setting fire inside of a fire line, including scratch lines or a wet lines, to consume fuel between the edge of the control line and the fire to strengthen the fireline (create a blackline). Burning out removes the danger of fuel near the line burning at a later date when no one is around or when conditions are such that flare-ups near the line would spot across the line. Typically 'burning out' around a residential dwelling to protect it from an advancing fire, fits this description. In this case, the goal is to protect the structure by removing the available fuel between the structure and the fires edge. Burning out should reduce the threat by adding to the existing clearance already located around the structure. If no pre-fire clearance has been accomplished by the homeowner, then this will create at least a minimum clearance.

Firing out an existing road to strengthen its conversion into a wider fire line falls into this same realm. These are defensive actions. In both of these examples, firefighters are literally defending the structure or the road by burning out, and reducing the threat posed by unburned vegetation. Sometimes the wind, slope and fuel arrangements are with you and sometimes they aren't. But if the effort is not made, the chances of the fire advancing beyond those limits are great.

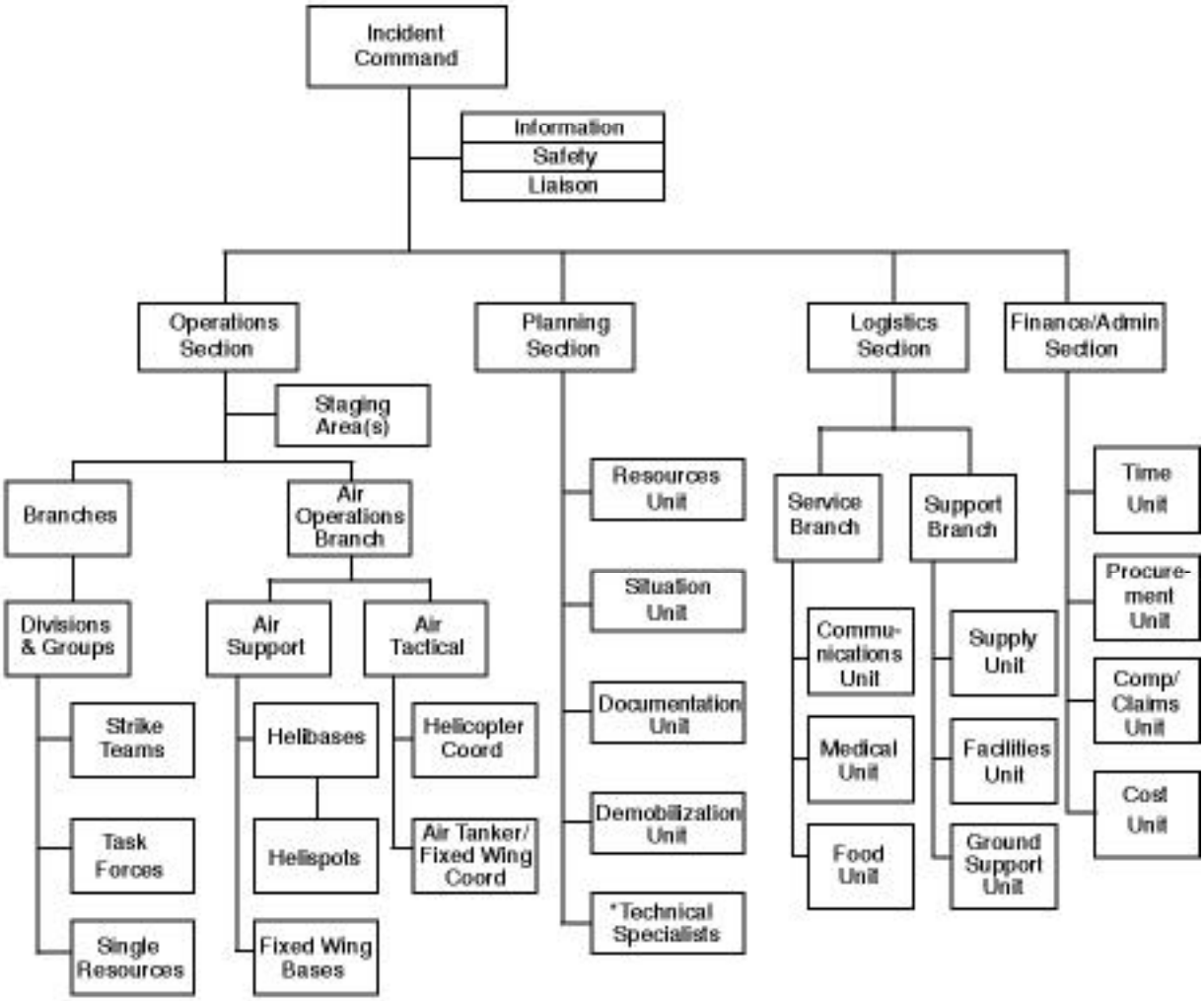
Most often, these types of operations may be performed by individual engine companies under the direction of a company officer, or by several engines under the direction of a Strike Team – Task Force Leader.

Backfire: A fire set along the inner edge of a control line, again to consume the fuel in the path of an advancing fire, or to change the direction or force of the main fire's spread. Backfires are normally conducted on a much larger scale than burning or firing out. Backfires are usually associated with pronounced topographic features, e.g. ridge tops, or are executed from wide roadways or pre-constructed firelines.

A backfire is a much more complex effort. It is considered an offensive tactic. It may involve numerous Strike Teams and may be executed by Firing Specialists. Coordination and timing is key to a safe backfire. A maneuver of this scale is well thought out in advance and approved by the Operations Section Chief. Typically, backfires are supported by fixed-wing airtankers or Type I helicopters that 'pre-treat' the unburned side of the line with retardant.

STANDARD INCIDENT COMMAND SYSTEM

INCIDENT COMMAND SYSTEM
ORGANIZATION CHART



* May be assigned wherever their services are required.

UNIT LOG ICS 214

UNIT/ACTIVITY LOG ICS-214 5-94	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED
	Hondo Fire	***10/16/00***	***0700***

4. ORGANIZATION POSITION	5. UNIT LEADER (NAME AND POSITION)	6. OPERATIONAL PERIOD
STL	***Borman, T.***	***0600 - 1800 hrs.***

7. PERSONNEL ROSTER ASSIGNED

Name	ICS Position	Home Base
Borman, T.	***S/T Leader***	***Napa F.D.***
Bradley, G.	***S/T Leader Trainee.***	***Napa F.D.***
Engine 3372		***Napa F.D.***
Engine 18		***Napa F.D.***
Engine 11		***American Canyon F.P.D.***
Engine 16		***Napa F.D.***
Engine 17		***St. Helena F.D.***

8. **ACTIVITY LOG (CONTINUE ON REVERSE)**

TIME	MAJOR EVENTS
1500	***Received briefing from Div. "C" Supervisor***
1530	***Briefed Strike Team on assignment***
1610	***Deployed Engines to structure protection assignment on***
	Thompson Avenue and Elm Lane
1830	***Meet with Div. "C" supervisor to plan/discuss***
	firing out operations.
1915	***Briefed Strike Team on firing out operations and***
	cautioned all regarding precautions
	to be taken.
1950	***Met with adjoining S/T Leaders to review their***
	status and share information
0500	***Advised by Div. "C" Supervisor to get prepared to***
	be relieved.
0600	***relieved by XSN ST 2376 A***
0700	***Arrived at Incident Base***

OBJECTIVES ICS 202

OBJECTIVES ICS 202	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED
	Crest	*8/20/00*	*2100*

4. OPERATIONAL PERIOD (Date/Time)

8/21/00 0600-1800

5. OVERALL INCIDENT OBJECTIVE:

1. Contain fire north of Cleghorn Canyon

2. Contain fire south of Summit Valley Recreation Development.

3. Contain fire less than 3,000 acres.

6. OBJECTIVES FOR THIS OPERATIONAL PERIOD:

1. Keep fire east of Highway 15 in Cajon Pass.

2. Keep Fire west of Cleghorn Pass and out of

Silverwood State Park.

3. Protect Criden Canyon Archeological site

7. WEATHER FORECAST FOR OPERATIONAL PERIOD

Continued hot and dry. Temp mid-90's, winds s/w 15-20, fuel moisture 3.0 to 3.5,

humidity around 18 percent

8. GENERAL SAFETY MESSAGE

Air operations use caution when working around transmission lines.

Rolling rocks could be a problem in the Lost Lake area.

9. ATTACHMENTS (✔ IF ATTACHED)

☐ ORGANIZATION LIST - ICS 203	☐ MEDICAL PLAN - ICS 206	☐
☐ DIV. ASSIGNMENT LISTS - ICS 204	☐ INCIDENT MAP	☐
☐ COMMUNICATIONS PLAN - ICS 205	☐ TRAFFIC PLAN	☐

ICS 202 5-94	10. PREPARED BY (Planning Section Chief)	11. APPROVED BY (Incident Commander)

ASSIGNMENT LIST ICS 204

1. BRANCH	2. DIVISION/GROUP	**ASSIGNMENT LIST**	**ICS 204**
	A		**(5-94)**

3. INCIDENT NAME	4. OPERATIONAL PERIOD
Crest	DATE: ***8-21-00***
	TIME: ***2100***

5. OPERATIONS PERSONNEL

OPERATIONS CHIEF	***R. Hardy***	DIVISION/GROUP SUPERVISOR	***E. Haskins***
BRANCH DIRECTOR		AIR ATTACK SUPERVISOR NO.	

6. RESOURCES ASSIGNED THIS PERIOD

RESOURCE DESIGNATOR	LEADER	NUMBER PERSONS	TRANS. NEEDED	DROP OFF PT./TIME	PICK UP PT./TIME
XNA ST 2201 A	***Borman, T.***	***17***			
OES ST 2800 A	***Sanders, R.***	***21***			
CDF ST 9142 C	***White, J.***	***18***			
CDF ST 9180 G	***Bennett, B.***	***35***			
CDF ST 9118 L	***Mann, G.***	***5***			
KNF ST 3601 C	***Harris, W.***	***21***			

7. CONTROL ASSIGNMENT(S)

Construct and hold line from point of origin to Cleghorn Ridge. Protect housing tract south of Cleghorn Pass. Lay hose and use water drops to support hand line.

8. SPECIAL INSTRUCTIONS/SAFETY MESSAGE

ANF H-531 will support with water drops out of

Lost Lake Helibase

9. DIVISION/GROUP COMMUNICATION SUMMARY

FUNCTION		FREQ.	SYSTEM	CHAN.	FUNCTION		FREQ.	SYSTEM	CHAN.
COMMAND	LOCAL	***168.100***	***Boise C-2***	***4***	SUPPORT	LOCAL	***154.295***	***Firemars***	***3***
	REPEAT	***170.450***	***Boise C-2***	***5***		REPEAT	***154.280***	***Firemars***	***4***
DIV/GROUP TACTICAL		***159.330***	***CDF***	***3***	GROUND TO AIR		***170.000***	***Boise***	***6***

PREPARED BY (RESOURCE UNIT LEADER)	APPROVED BY (PLANNING SECTION CHIEF)	DATE	TIME

DEMOBILIZATION/RELEASE

The Planning Section is responsible for the preparation of the Demobilization Plan to ensure that an orderly, safe, and cost effective movement of personnel and equipment is accomplished from the incident. The Logistics Section is responsible for implementing the plan.

1. Demobilization and release will take place in accordance with the Incident Demobilization Plan using ICS Form 221. **(Follow Demob Plan).**

2. Obtain necessary supplies to assure that the Strike Team leaves in a **"state of readiness"**. If unable to replace lost or damaged equipment, notify your OES Agency Representative and get written acknowledgment from the Incident Commander prior to leaving the incident. Return all radios and equipment on loan to you from the incident.

3. **Timekeeping:** OES Form F-42 (Emergency Activity Record) is utilized to record and substantiate activities of OES/Local Government apparatus. It is designed to record information on personnel and equipment. The OES Form F-42 **must** be completed for **any response to a Forest Agency (reimbursable) fire.**

4. **Debriefing:** Critique assignment and performance. NOTE: Some Incidents/ Agencies will require that the Incident Personnel Performance Rating form, ICS 225, be filled out for each subordinate. It will save time during Demob to check ahead to determine if Performance Ratings will be required. Notify personnel that the area/facilities should be returned to the pre-incident condition.

5. Vehicle Safety Inspections may be required before a Strike Team can be released. This takes time, plan ahead. ICS form 212 the Incident Demobilization Vehicle Safety Inspection, will be filled out by the inspector (usually an agency mechanic).

6. Instruct personnel on travel procedures to return home or to new incident. (Determine any planned stops and disassembly points).

7. Have OES Region and Operational Area notified of your release, travel route, and estimated time of arrival back home.

8. Have all apparatus notify the OES Operational Area upon their return.

DEMOBILIZATION CHECKOUT ICS 221

DEMOBILIZATION CHECKOUT **ICS-221**

1. INCIDENT NAME/NUMBER	2. DATE/TIME	3. DEMOB. NO.
4. UNIT/PERSONNEL RELEASED		
5. TRANSPORTATION TYPE/NO.		
6. ACTUAL RELEASE DATE/TIME _____	7. MANIFEST YES NO NUMBER _____	
8. DESTINATION _____	9. AGENCY / REGION / AREA NOTIFIED NAME _____ DATE _____	
10. UNIT LEADER RESPONSIBLE FOR COLLECTING PERFORMANCE RATING		

11. UNIT/PERSONNEL YOU AND YOUR RESOURCES HAVE BEEN RELEASED SUBJECT TO SIGN OFF FROM THE FOLLOWING:

(DEMOB. UNIT LEADER CHECK ✔ APPROPRIATE BOX)

LOGISTICS SECTION

- ☐ SUPPLY UNIT _____
- ☐ COMMUNICATIONS UNIT _____
- ☐ FACILITIES UNIT _____
- ☐ GROUND SUPPORT UNIT _____

PLANNING SECTION

- ☐ DOCUMENTATION UNIT _____

FINANCE/ADMINISTRATION SECTION

- ☐ TIME UNIT _____

OTHER

- ☐ _____ _____
- ☐ _____ _____

12. REMARKS

_____

_____

ICS 221	5-94	

DEMOBILIZATION CHECKOUT ICS 221

May, 1994 **ICS-221**

INSTRUCTIONS FOR COMPLETING THE DEMOBILIZATION CHECKOUT (ICS FORM 221)

Prior to actual Demob Planning Section (Demob Unit) should check with the Command Staff (Liaison Officer) to determine any agency specific needs related to demob and release. If any, add to line Number 11.

Item Number	Item Title	Instructions
1.	Incident Name/ No.	Print Name and/ or Number of incident.
2.	Date & Time	Enter Date and Time prepared.
3.	Demob. No.	Enter Agency Request Number, Order Number, or Agency Demob Number if applicable.
4.	Unit/Personnel Released	Enter appropriate vehicle or Strike Team/Task Force ID Number(s) and Leader's name or individual overhead or staff personnel being released.
5.	Transportation	Method and vehicle I.D. Number for transportation back to home unit. Enter N/A if own transportation is provided. *Additional specific details should be included in Remarks, block # 12.
6.	Actual Release Date/Time	To be completed at conclusion of demob at time of actual release from incident. Would normally be last item of form to be completed.
7.	Manifest	Mark appropriate box. If yes, enter manifest number. Some agencies require a manifest for air travel.
8.	Destination	Enter the location to which unit or personnel have been released. I.e. area, region, home base, airport, mobilization center, etc.
9.	Area/Agency/ Region Notified	Identify Area, Agency, or Region notified and enter date and time of notification.
10.	Unit Leader Responsible For Collecting Performance Ratings	Self-explanatory. Note, not all agencies require these ratings.
11.	Resource Supervision	Demob Unit Leader will identify with a check in the box to the left of those units requiring checkout. Identified Unit Leaders are to initial to the right to indicate release. Blank boxes are provided for any additional check, (unit requirements as needed), i.e. Safety Officer, Agency Rep., etc.
12.	Remarks	Any additional information pertaining to demob or release.

Incident Demobilization Vehicle Safety Inspection

Vehicle Operator: Complete items above double lines prior to inspection

Incident Name	Order No.	
Vehicle: License No.	Agency	Reg/Unit
Type (Eng., Bus., Sedan)	Odometer Reading	Veh. ID No.

Inspection Items	Pass	Fail	Comments
1. Gauges and lights. See back *			
2. Seat belts. See back *			
3. Glass and mirrors. See back *			
4. Wipers and horn. See back *			
5. Engine compartment. See back			
6. Fuel system. See back *			
7. Steering. See back *			
8. Brakes. See back *			
9. Drive line U-joints. Check play			
10. Springs and shocks. See back			
11. Exhaust system. See back *			
12. Frame. See back *			
13. Tire and wheels. See back *			
14. Coupling devices. * Emergency exit (Buses)			
15. Pump Operation			
16. Damage on Incident			
17. Other			

*** Safety Item - Do not Release Until Repaired**

Additional Comments:

HOLD FOR REPAIRS	RELEASE
Date Time	Date Time
Inspector Name (Print)	Operator Name (Print)
Inspector Signature	Operator Signature

This form may be photocopied, but three copies must be completed.
Distribution: Original to Inspector, copy to vehicle operator, copy to Incident Documentation Unit
ICS 212 2/96

INSPECTION ITEMS

(Ref: Federal Motor Carrier Safety Regulation)

HOLD FOR REPAIRS IF:

1.Gauges & Lights	-Speedometer inoperative. (Federal Motor Carrier Safety Regulation (FMCSR 393.82) -All required lighting devices, reflectors and electrical equipment must be properly positioned, colored and working. (FMCSR 393.9)		8. Brakes	-Brake system has any missing, loose, broken, out of adjustment or worn out components. -Brake system has any air or fluid leaks. (FMCSR Appendix G, Sub. B) -Brake system has any other deficiencies as described in FMCSR Appendix G, Sub. B.
2. Seat Belts	-Any driver's or right outboard seat belt, missing or inoperative. (FMCSR 393.93) -Passenger carrying have missing or inoperative seat belts in passenger seats, Buses excepted.		10. Springs & Shocks	-Any U-bolt, spring, spring hanger or any other axle positioning part is cracked, broken, loose or missing resulting in any shifting of an axle from it's normal position. (FMCSR Appendix G, Sub. B)
3. Glass & Mirrors	-Any windshield crack over 1/4" wide. -Any damage 3/4" or greater in diameter. -Any 2 damaged areas are closer than 3" to each other. -Any crack less than 1/4" wide intersects with any other crack. (FMCSR 393.60) -Any crack or discoloration in the windshield area lying within the sweep of the wiper on either side of the windshield (FMCSR Appendix G, Sub. B) -Any required mirror missing. One on each side, firmly attached to the outside of the vehicle, and so located as to reflect to the driver a view of the highway to the rear along both sides of the vehicle. See Exceptions (FMCSR 393.80) -Any required mirror broken.		11. Exhaust	-Any leaks at any point forward of or directly below the driver and/or sleeper compartment. -Bus exhaust leaks or discharge forward of the rearmost part of the bus in excess of 6' for Gasoline powered or 15" for other then Gasoline powered, or forward of any door or window designed to be opened on other then Gasoline powered bus. (Exception: emergency exit) -Any part of the exhaust system so located as would be likely to result in burning, charring, or damaging the wiring, fuel supply or any combustible part of the vehicle. (FMCSR Appendix G, Sub. B)
4. Wipers & Horn	-Wiper blade(s) fail to clean windshield within 1" of windshield sides. (FMCSR 393.78) -Horn, missing, inoperative, or fails to give an adequate and reliable warning signal. (FMCSR 393.81)		12. Frame	-Any cracked, broken, loose or sagging frame member. -Any loose or missing fasteners including those attaching engine, transmission, steering gear, suspension, body or frame to contact the tire or wheel assemblies. -Adjustable axle assemblies with locking pins missing or not engaged. (FMCSR Appendix G, Sub. B)
5. Engine Compartment	-Low fluid levels -Loose or leaking battery -Excessive leaks -Cracked or deteriorated belts or hoses. -Any condition of impending or probable failure.		13. Tires & Tread	-Tread depth less than 4/32" on steering axle. -Less than 2/32" on any other axle. -Any body ply or belt material exposed through tread or sidewall. -Any tread or sidewall separation. -Any cut exposing ply or belt material. -Any tire marked "Not for highway use". -A tube-type radial tire without radial tube stem markings. -Any mixing of bias and radial tires on the same axle. -Any tire not properly inflated or overloaded. -Any bus with recapped tires. (FMCSR Appendix G, Sub. B) -Lock or slide rings; any bent, broken, cracked, improperly seated, sprung or mismatched ring(s). -Wheels and rims; any cracked or broken or has elongated bolt holes. -Fasteners (both spoke and disc wheels). Any loose, missing, broken, cracked, stripped or otherwise ineffective fasteners. -Any cracks in welds attaching disc wheel disc to rim. -Any crack in welds attaching tubeless demountable rim to adapter. -Any welded repair on aluminum wheel(s) on a steering axle or any welded repair other then disc to rim attachment on steel disc wheel(s) on steering axle. (FMCSR Appendix G, Sub. B)
6. Fuel System	-Visible leak at any point. -Fuel tank cap missing. -Fuel tank not securely attached to vehicle by reason of loose, broken or missing mounting bolts or brackets. (FMCSR Appendix G, Sub. B)			
7. Steering	-Steering wheel does not turn freely, has any spokes cracked, loose spokes or missing parts. -Steering lash not within parameters, see chart, in FMCSR 393.209. -Steering column is not secure -Steering system; any U-joints worn, faulty or repaired by welding. -Steering gear box is loose, cracked or missing mounting bolts. -Pitman arm loose. -Power Steering; any components inoperative. Any loose, broken or missing parts. Belts frayed, cracked or slipping. -Any fluid leaks, fluid reservoir not full. (FMCSR 393.209)			

INCIDENT PERSONNEL PERFORMANCE RATING	INSTRUCTIONS: The immediate job supervisor will prepare this form for each subordinate. It will be delivered to the planning section before the rater leaves the fire. Rating will be reviewed with employee who will sign at the bottom.

THIS RATING IS TO BE USED ONLY FOR DETERMINING AN INDIVIDUAL'S PERFORMANCE

1. Name	2. Fire Name and Number
3. Home Unit (address)	4. Location of Fire (address)

5. Fire Position	6. Date of Assignment From: To:	7. Acres Burned	8. Fuel Type(s)

9. Evaluation

Enter X under appropriate rating number and under proper heading for each category listed. Definition for each rating number follows:

0--Deficient. Does not meet minimum requirements of the individual element.
DEFICIENCIES MUST BE IDENTIFIED IN REMARKS.

1--Needs to improve. Meets some or most of the requirements of the individual element.
IDENTIFY IMPROVEMENT NEEDED IN REMARKS.

2--Satisfactory. Employee meets all requirements of the individual element.

3--Superior. Employee consistently exceeds the performance requirements.

Rating Factors	Hot Line				Mop-Up				Camp				Other (Specify)			
	0	1	2	3	0	1	2	3	0	1	2	3	0	1	2	3
Knowledge of the job																
Ability to obtain performance																
Attitude																
Decisions under stress																
Initiative																
Consideration for personnel welfare																
Obtain necessary equipment and supplies																
Physical ability for the job																
Safety																
Other (specify)																

10. Remarks

11. Employee (signature) This rating has been discussed with me			12. Date
13. Rated By (signature)	14. Home Unit	15. Position on Fire	16. Date

NFES 1576 9/86 ICS Form 225

APPENDIX A

STATEWIDE FREQUENCY PLAN

This plan was developed to assist fire service agencies in buying and programming synthesized radios. Local needs (Group 1) are those channels normally used in initial attack situations. These would probably require less than 16 channels and may also include Mutual Aid White channels from Group 2. A 16-channel radio may be adequate for an engine. However, it is recommended that vehicles used by command personnel, such as strike team leaders, battalion chiefs, division chiefs, etc., should be equipped with at least a 32-channel radio. In synthesized radios, the additional channels cost very little. Command vehicles with 32-channel radios should be programmed with Group 1, 2, 3.

California Department of Forestry and Fire Protection (CDF) and Federal agencies use eight standard sub-audible tones for repeater access. Unless a radio has selectable tones or an external tone box, it would take eight channels to have complete repeater access on one of their channels. Likewise, if the radio does not have a "direct/repeat" switch, one channel is needed for each direct frequency and one for each repeat frequency pair.

While numerous frequencies can be programmed into radios, it is important to note that in order to use those frequencies your agency must be licensed for those frequencies or have a frequency use agreement or memorandum of understanding with the agency that is licensed for the frequencies. Such agreements with CDF and U.S. Forest Service are not uncommon. Such agreements still limit the use of each frequency to certain geographic areas.

This plan lists recommended groups of frequencies by priority for programming radios, i.e., Group 1 is the highest priority. In order to use any frequency use agreement or memorandum of understanding with the agency which is licensed for the frequency.

GROUP	USE	FREQUENCY
1	LOCAL: BETWEEN ALL LOCAL FIRE AGENCIES INCLUDING CITIES, COUNTIES, CDF RANGER UNITS, USFS, BUREAU OF LAND MANAGEMENT, NATIONAL PARK SERVICE	
2	WHITE FIRE 1	154.280
	WHITE FIRE 2	154.265

	WHITE FIRE 3		154.295
	*CDF NET 1	DIRECT & RX	151.355
		TX REPEAT	159.300
	*CDF NET 2	DIRECT & RX	151.265
		TX REPEAT	159.330
	CALCORD		156.075
3	*NIFC COMMAND 1	DIRECT & RX	168.700
		TX REPEAT	170.975
	*NIFC COMMAND 2	DIRECT & RX	168.100
		TX REPEAT	170.450
	*NIFC COMMAND 3	DIRECT & RX	168.075
		TX REPEAT	170.425
	*NIFC TAC 1		168.050
	*NIFC TAC 2		168.200
	*NIFC TAC 3		168.600
	*CALIFORNIA TRAVEL NET	DIRECT & RX	169.125
		TX REPEAT	168.325

Note: NIFC Command 1, 2, 3 and NIFC TAC 1, 2, 3 are required for permission to use California Travel Network.

4 Air to Ground Frequencies - these frequencies are to be used by ground units in emergencies to communicate with aircraft, e.g., when ground crews are being overrun by fire or are going to be hit by a water or retardant drop. These frequencies are also used by those responsible for coordination with aircraft.

	USFS Air to Ground	170.000

	CDF Air to Ground		151.220
	BLM Air to Ground		167.950
U.S. Forest Service Region 5 (California) Tacticals			
	U.S.F.S. TAC 4		173.9125
	U.S.F.S. TAC 5		173.9625
	U.S.F.S. TAC 6		173.9875

5 Frequencies necessary to interface with CDF on a regional basis (coordinate with CDF Region Office).

6	OES 1 (Simplex)		154.160
	OES 2		154.220
	*WHITE FIRE 3 REPEAT	RX	154.295
	(FIREMARS)	TX	153.830

7 ALL CDF FREQUENCIES
ALL OTHER LOCAL FIRE SERVICE FREQUENCIES
FREQUENCIES FOR ALL NATIONAL
FORESTS IN CALIFORNIA
OTHER BLM AND NPS

*NOTE: STATE OF CALIFORNIA AGENCIES (E.G., CDF & OES) AND FEDERAL AGENCIES USE THE FOLLOWING TWELVE STANDARD TONES FOR REPEATER ACCESS AND MUST BE INCLUDED FOR REPEATER USE. RECEIVERS MUST BE PROGRAMMED FOR CARRIER SQUELCH (NO TONES).

1. 110.9	2. 123.0	3. 131.8	4. 136.5
5. 146.2	6. 156.7	7. 167.9	8. 103.5
9. 100.00	10. 107.2	11. 114.8	12. 127.3

The CALIFORNIA TRAVEL NETWORK is also known as- - “TRAVEL NET”, “CTNT”, “CALLING NETWORK”, and “REGION 5 TRAVEL NETWORK.”

The California Department of Forestry and Fire Protection in an agreement with the U.S. Forest Service, have jointly developed a radio net for travel use. In 1988 CDF signed a shared use agreement with the U.S.F.S. to authorize CDF to use U.S.F.S. licensed Frequencies. Currently there are a combined total (CDF-USFS) 25 mobile relays and 29 control stations statewide.

The Travel Net is designated for use by resources enroute to, or from an outside of their home unit or forest. Staging areas and base camps can use this Net for initial check in purposes.

STRIKE TEAMS OR PERSONNEL DISPACTCHED OUT OF THEIR LOCAL AREA ARE TO MONITOR THE TRAVEL NET WHILE ENROUTE TO ASSIGNED INCIDENT OR MOBILIZATION CENTER/STAGING AREA.

All CDF/USFS mobile radios are to have the capability to transmit and receive Travel Network freq. Direct TX 169.125, and Repeat TX 168.325 RX 169.125

THIS FREQUENCY IS RESTRICTED FROM ALL TACTICAL USE AND ROUTINE ADMINISTRATION COMMUNITCATIONS.

Authorized uses are:

a. Emergency vehicle-to-dispatch communications.
b. Emergency car-to-car communications
c. Initial call, recall, and redirection of personnel and equipment. (emergency resource monitoring)
d. Contact channel during long distance assignments.

The attached map shows all mobile relays, control stations, and CTCSS tones. Most CDF and USFS Dispatch consoles are equipped with control stations to communicate via repeater to mobiles

APPENDIX B


CALIFORNIA
TRAVEL NETWORK
Ball Mtn
Grouse Mtn
Soda Ridge
Horse Mtn
Black Mtn
Cahto Peak
St. John Mtn
Mt. Rose
Mt. St. Helena
Big Hill
Conway Summit
Mt. Diablo
Pacheco Peak
Musick Peak
Bear Mtn
Cerro Gordo
Calandra Peak
Lowe
Breckenridge
Frazier Mtn
Santa Ynez Peak
Blue Ridge
Onyx Peak
Pleasant Peak
Elsinore Peak
Lyons Peak
MOBILE RELAYS
TX 169.125 RX 168.325
CTCSS ACCESS TONE
1 110.9
2 123.0
3 131.8
4 136.5
5 146.2
6 156.7
7 167.9
8 103.5
50 0 50 100 Miles

APPENDIX C

STATE OF CALIFORNIA

GRAY DAVIS, Governor

GOVERNOR'S OFFICE OF EMERGENCY SERVICES
Fire and Rescue Branch
P.O. Box 419047-9047
Rancho Cordova, CA. 95741-9047
Phone (916) 845-8711
Night-Weekends: (916) 845-8911
Fax: (916) 845-8396
E-Mail: OES_Fire@oes.ca.gov

June 6, 2002

OES Fire Regional and Operational Coordinators

Please share the contents of this letter with all Regional and Operational Area personnel, especially with Division/Group Supervisors and Strike Team/Task Force Leaders.

At times, during structure protection assignments, fire personnel may need to consider entering unoccupied and/or evacuated dwellings. The following guidelines must be applied by Strike Team/Task Force Leaders to fire crews working on these assignments:

- The Strike Team/Task Force Leader has been given permission by the property owner to enter the structure. That permission and the owners contact information must be documented on the ICS 214.
- The dwelling is in imminent danger from an approaching fire and entry is warranted to conduct appropriate protective measures: i.e. closing windows, removing flammable curtains, closing doors, etc.
- The crew must take refuge inside dwelling to retreat from the fire.

It is expected that all fire personnel granted permission to enter a dwelling will treat the property with due respect, and conduct themselves in a professional manner. Failure to adhere to these basic concepts in the past has resulted in legal action.

All entries into any dwelling must be recorded on the Company and Strike Team/Task Force Leader Unit Log (ICS 214) and reported to the Division/Group Supervisor as soon as operationally feasible.

We have an obligation to the citizens we protect to respect their property, and to maintain the Public Trust we have earned.

Thank you for your continued support of the Fire and Rescue Mutual Aid System, and your efforts to share this important information.

Sincerely,

KIM ZAGARIS, Chief
Fire and Rescue Branch

c: File

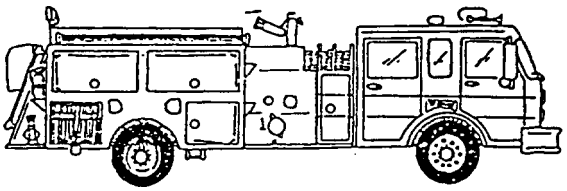
KL/Bea

APPENDIX D

Minimum Equipment Engine Standards by ICS Engine Type

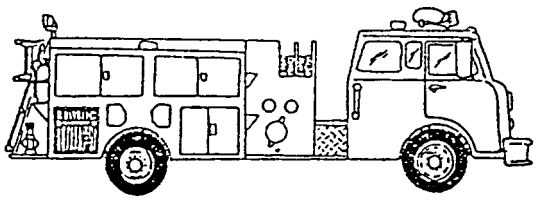
Type One Engine Company

- 1,000 gpm
- 400 gallon tank
- 1,200 ft. 2 ½" hose or larger
- 400 ft. 1 ½" or 1 ¾" hose
- 200 ft. 1" hose
- 20 ft. extension ladder
- 500 gpm heavy stream
- 4 personnel



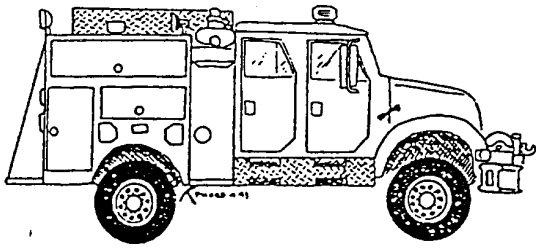
Type Two Engine Company

- 500 gpm
- 400 gallon tank
- 1,000 ft. 2 ½" hose or larger
- 500 ft. 1 ½" or 1 ¾" hose
- 300 ft. 1" hose
- 20 ft. extension ladder
- 3 personnel



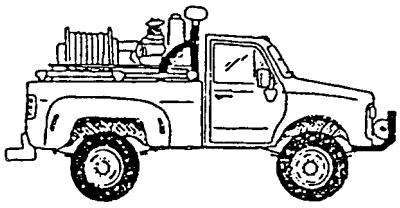
Type Three Engine Company

- 120 gpm
- 300 gallon tank
- 1,000 ft. 1 ½" hose
- 800 ft. 1" hose
- 3 personnel



Type Four Engine Company

- 50 gpm
- 200 gallon tank
- 300 ft. 1 ½" hose
- 800 ft. 1" hose
- 3 personnel



Graphic courtesy of Fire Publications, Inc., & Phillip L. Queens, Fighting Fire in the Wildland Urban Interface

ICS ENGINE STANDARDS

As orders for Type 3 Engine Strike Teams have increased, and as local interface problems have been identified, many local government fire agencies have acquired Type 3 Apparatus.

Keep in mind that the above stated standards are minimum requirements. Just because an engine meets the minimum standards on the chart, does not necessarily mean that it can carry out the mission of Type 3 Apparatus. An example would be a full sized Type 1 Engine that has the extra 1 ½" and 1" hose added so it can also meet Type 3 standards.

A typical Forest Agency Type 3 Engine has a number of features that enhance it's capability to operate on a narrow, steep, or unimproved roads and to allow the efficient application of water or other agents. These features include:

Short Wheelbase
High Ground Clearance
High Angle of Approach & Departure
Auxiliary Motor Powered Pump to allow Pump & Roll
Unit # on Roof
2X4 or 4X4
Class A Foam
Progressive Hose Lay Packs
Lower GVW than a Type 1 or 2
Wildland Hand Tools
Portable Pump
Chainsaw
Fusee's or drip torch
Hard suctions for drafting
Back Pumps

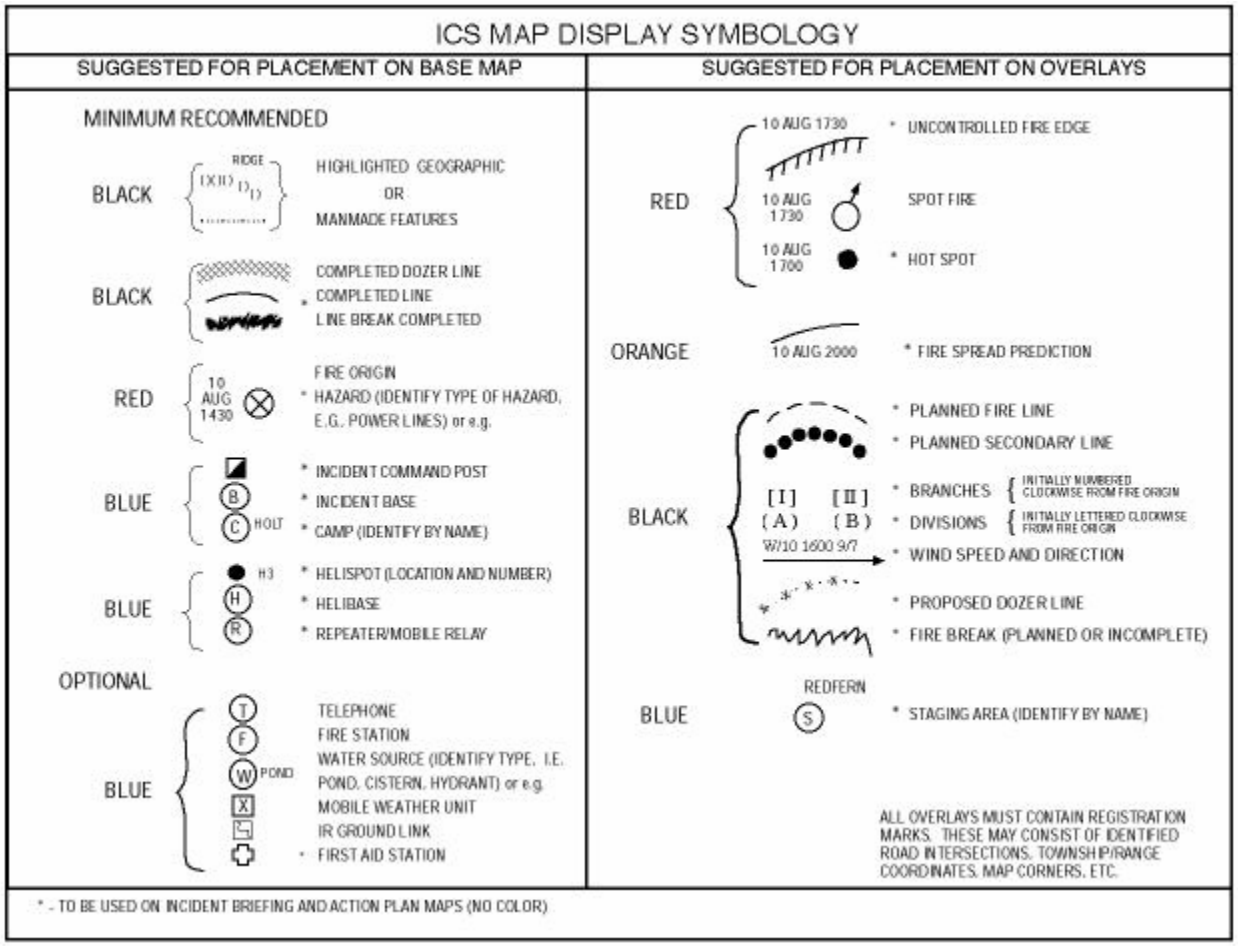
The Forest Agencies have the expectation that when a Local Government Type 3 strike team arrives at an incident, it can perform all of the missions that their own Type 3's can. This may or may not be true, depending upon the training that the Local Government crews have taken. Specifically, Type 3 Engine crews should be adequately trained in the following:

Wildland Strategy & Tactics
Wildland Fire Behavior
Wildland Hose Lays
Wildland Fire Safety
Backfiring
Hand Line Construction
Structure Triage
Prepping a Structure

As overall suppression costs go up and as the reimbursement rate for strike teams also goes up, Forest Agencies are expecting all local government Type 3 strike teams to be capable of going where Type 3's were designed to go and doing what Type 3 crews are trained to do.

APPENDIX E

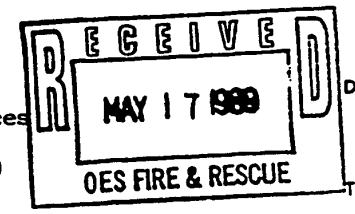
ICS Map Display Symbology



APPENDIX F

Backfire Authority Memorandum

Memorandum



To : Mr. Kim Zagaris
Office of Emergency Services
2800 Meadowview Road
Sacramento, CA 95832-1499

Date : May 12, 1989
F-31

Telephone: ATSS ( ) 445-9445
( )

From : Department of Forestry and Fire Protection

Subject: 1000 CIVIL DEFENSE & EMERGENCIES OTHER THAN FIRE
1050 State Office of Emergency Services
Authority for backfiring during wildland fire suppression operations

You requested information about CDF authority for backfiring during wildland fire suppression operations. You also wanted to know if a local government cooperator had the same backfiring authority as CDF.

Public Resources Code (PRC) Section 4113 charges CDF officers to prevent and extinguish forest fires. PRC 4118 states "The burning of growing, dead, or downed vegetation is for a public purpose if the department has determined that the burning of such vegetation is necessary for the prevention or suppression of forest fires." PRC 4426 elaborates further and states "A person shall not set a backfire, or cause a backfire to be set, except under the direct supervison or permission of a state or federal forest officer, unless it can be established that the setting of such backfire was necessary for the purpose of saving life or valuable property." I think it is clear that CDF and federal officers have backfiring authority but must certainly exercise care and good judgement in this activity.

Regarding an OES cooperator's authority to backfire, I think it is clear they have authority when directed by CDF, or when it is necessary to protect life and valuable property. I do not think they have authority to go about the countryside setting backfires without direction or cause. Under those conditions I think they would be acting in bad faith and may be grossly negligent. Certainly we would not allow local government cooperators to fight fire without proper supervison.

Government Code (GC) Section 850 et seq. outline general fire service liability for departments and employees. In particular, Sec. 850.4 immunizes public entities and employees for any injury caused in fighting fires. It is my understanding that this section has been interpreted many times in court cases that a firefighter is not liable for actions unless the person acts in bad faith or is grossly negligent.

I have reviewed the OES/CDF/USFS tri-party agreement, and the State Master Mutual Aid Agreement and they are silent on the liability issue.

After researching this matter I think our local government cooperators can backfire when directed by CDF, or a federal fire officer, and when they need to use it as a tactical method to protect life and valuable property.

Please call me at 445-9445 if you have any questions.

Gary Brittner
Division Chief
Cooperative Fire Services

STRIKE TEAM LEADER

DISPATCH WORKSHEET

Date: Time Dispatched:_____ Name of Incident:_____

Incident Order #_____ Request # E - _____ Strike Team #_____

Situation:_____

Requesting Agency:_____ Dispatch Phone #_____

Reimbursement: ☐Mutual Aid (Non-Reimbursed) ☐5-Party Agreement (Reimbursed)

Response: ☐Initial Attack ☐Immediate Need ☐Planned Need - Depart Time:

Rendezvous Point:_____ Time:_____ Map Ref: _____

Incident Reporting Location:_____ Time:_____ Map Ref: _____

COMMUNICATIONS:

Travel Frequency: _____
Staging Frequency: _____
Base/Check-In Frequency: _____
Command Frequency: _____
Tactical Frequency: _____

Phone Numbers (cell, pager, OES, etc.)

_____
_____
_____
_____
_____

ASSIGNED UNITS: S/T/L Trainee:_____

ENG #	A.1 CAPTAIN	AGENCY	3-LTR	TYPE	FUEL	PUMP	TANK	FOAM	4WD	PUMP&ROLL

TRAVEL ROUTE:_____

_____

_____Planned Stops:_____

NOTES:_____

_____

Rev 5/2001 J.Marquis

B STRIKE TEAM BRIEFING CHECKLIST

- **STL's General Message and Incident Update**
  - Introduce self, STL Trainee, and identify "Asst. STL" (most experienced engine captain)
  - Provide brief overview of known incident information and assignment
  - Work ethic, professionalism, human relations expectations

- **Communications**
  - Identify cell phone numbers, travel and tactical radio frequencies
  - Determine radio designators for engines/captains, STL, and STL (T)
  - Radio traffic will be kept brief, professional, and to a minimum
  - Information will normally be exchanged up and down via Captains' Meetings and chain of command. ***Exception:*** *immediate and/or unresolved safety issues*
  - Distribute portable radios/batteries if available/needed

- **Engine Readiness**
  - Full water tank
  - Rig for probable assignment*
  - Identify engines
    - Strike team designator in upper right corner of windshield with white shoe polish applicator
    - Engine designator/Captain's name lower right corner of windshield

- **Safety**
  - Review known or probable incident hazards, emphasizing LCES
  - Engine protection line* & 100 gallon reserve rule
  - Identify EMS resources on team
  - Fire shelters in the cab, PPE donned*
  - Affirm crew evacuation signals and procedure (e.g. where to reform, PAR procedure)

- **Travel Procedures**
  - Response urgency, including appropriate use of code-3
  - Travel route, planned stops, reporting location
  - Keep formation tight; slowest engine in front, Asst. STL engine bringing up the rear
  - Advise when approaching quarter fuel during travel, at least half fuel at time of deployment
  - Fuel payment procedure

- **Operations**
  - Briefly review essential elements of anticipated tactics (e.g. structure protection, progressive hose lay, running attack), emphasizing water conservation and mobility
  - Identify members having special experience/qualifications, e.g. Hot Shot, sawyer, mechanic
  - Assignments will primarily be based on crew experience, capability, and readiness
  - No freelancing. Captains will advise me when their assignments are completed or if they are receiving conflicting orders from Division Supervisor, etc.
  - Staging means 3-minute ***maximum*** ready time, ***all the time***
  - Accountability and behavior expectations during unassigned time
  - I'll try to work with Staging and the Resource Unit to get us in the game, but no guarantees
  - All supply requisitions will go through the STL or designee
  - If anyone is unable to commit to this assignment for at least 96 hours, advise as soon as possible.

- **Closing Comments/Questions**

*may postpone until approaching incident

Rev. 5/2001 J.Marquis